



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/954,839	09/17/2001	Scottie W. Walker	SD-6762	8128

7590 06/27/2003

Timothy D. Stanley  
Sandia National Laboratories  
P. O. Box 5800 - MS-0161  
Albuquerque, NM 87185-0161

EXAMINER

HANNAHER, CONSTANTINE

ART UNIT PAPER NUMBER

2878

DATE MAILED: 06/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/954,839

Applicant(s)

WALKER, SCOTTIE W.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION****Information Disclosure Statement**

1. As set forth in MPEP § 609:

37 CFR 1.98(b) requires that each item of information in an IDS be identified properly. U.S. patents must be identified by the inventor, patent number, and issue date. U.S. patent application publications must be identified by the applicant, patent application publication number, and publication date. U.S. applications must be identified by the inventor, the eight digit application number (the two digit series code and the six digit serial number), and the filing date. If a U.S. application being listed in an IDS has been issued as a patent, the applicant should list the patent in the IDS instead of the application. Each foreign patent or published foreign patent application must be identified by the country or patent office which issued the patent or published the application, an appropriate document number, and the publication date indicated on the patent or published application. Each publication must be identified by publisher, author (if any), title, relevant pages of the publication, date and place of publication. The date of publication supplied must include at least the month and year of publication, except that the year of publication (without the month) will be accepted if the applicant points out in the information disclosure statement that the year of publication is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the particular month of publication is not in issue. The place of publication refers to the name of the journal, magazine, or other publication in which the information being submitted was published.

The presence of the listings in the specification is considered to remove the issue of the particular month of publication. The reports from the Sandia National Laboratory, however, have not been listed such that anyone reading a patent may identify and retrieve the publications cited.

MPEP § 707.05(e).

**Specification**

2. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Note the use of "An improvement to existing..." and "improvement comprising..." and "comprising..." which can be implied and are legal phraseology.

3. The disclosure is objected to because of the following informalities: page 6, line 2, "a" should read --as--; page 6, lines 4-5, "pass to" is inconsistent with the disclosure of measuring wavelengths *from* the crystals.

Appropriate correction is required.

4. The use of the trademark MYLAR has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

5. The use of the trademark TEFLON has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

### **Claim Objections**

6. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

Claims 10-13 do not refer to a preceding claim. Claim 12, indeed, refers to a claim which does not exist.

7. Applicant is advised that should claim 2 be found allowable, claim 6 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

8. Applicant is advised that should claim 3 be found allowable, claim 7 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

9. Applicant is advised that should claim 4 be found allowable, claim 8 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

10. The Examiner will otherwise consider the claims in the numerical order.

### **Claim Rejections - 35 USC § 112**

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With respect to independent claims 1 and 5, there is no apparent difference in scope between these two claims. Reasonably construed, there is no “lens drawer comprising one or more bandpass filters” within the scope of claim 5 which would not also infringe the “lens drawer comprising one or more bandpass filters” of claim 1. The preamble of claim 1 merely defines the context in which the invention operates and does not give meaning to any limitation (“lens,” “drawer,” “bandpass,” and “filters”) recited in the body of the claim.

With respect to dependent claims 2 and 6, since the claims exclude the thermoluminescence crystals from their scope, whether any particular lens drawer within the scope of claim 1 or claim 5 has a number of bandpass filters which is equal to any number at all is an undecidable proposition. Furthermore, since the ordinary skill in the art must be presumed to be able to choose the number of thermoluminescence crystals in any program of dosimetry, the claims literally recite the entire range of positive whole numbers from unity to infinity and thus do not “particularly point out and distinctly claim” any subject matter since there are no numbers left over. Also, since a thermoluminescence device is not a part of the scope of claim 5, what it might mean for one to be “corresponding” as recited by claim 6 is not clear.

The balance of the claims is rejected on the basis of their dependence.

### Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. Claims 1, 2, 4-6, 8-11, and 13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Attix (US003484605A).

With respect to independent claim 1, Attix discloses in a thermoluminescence device (Fig. 9) comprising a sensitive element **11** comprising one or more thermoluminescence crystals **A, B** a lens (flat plates are lenses of zero power) drawer (shutter **28** has every property of a “drawer” identified by the specification) comprising one or more bandpass filters **31, 32** (column 6, line 75 to column 1, line 1).

With respect to dependent claim 2, the number of bandpass filters **31, 32** in the drawer of Attix is equal to the number of thermoluminescence crystals **A, B**.

With respect to dependent claim 4, the bandpass filters **31, 32** in the drawer of Attix comprise lenses insofar as a flat plate is fairly identified as a lens of no power.

With respect to independent claim 5, Attix discloses a thermoluminescence (title) device (Fig. 9) lens (flat plates are lenses of zero power) drawer (shutter **28** has every property of a “drawer” identified by the specification) comprising one or more bandpass filters **31, 32** (column 6, line 75 to column 1, line 1).

With respect to dependent claim 6 (as best understood as depending from claim 5), the number of bandpass filters **31, 32** in the drawer of Attix is equal to the number of thermoluminescence crystals **A, B** of a corresponding thermoluminescence device.

With respect to dependent claim 8 (as best understood as depending from claim 5), the bandpass filters **31, 32** in the drawer of Attix comprise lenses insofar as a flat plate is fairly identified as a lens of no power.

With respect to independent claim 9, Attix discloses a method of thermoluminescence dosimetry corresponding to the illustrated device (Fig. 9) which would comprise the steps of heating one or more thermoluminescence crystals **A, B** (column 7, lines 54-58), passing light from the one or more crystals **A, B** through one or more bandpass filters **31, 32** (column 6, line 75 to column 1, line 1), and detecting light passed through the one or more bandpass filters (using suitable light detector **27**).

With respect to dependent claim 10 (as best understood as depending from claim 9), the bandpass filters **31, 32** in the method of Attix are located in a lens drawer **28** insofar as a flat plate is fairly identified as a lens of no power and shutter **28** has every property of a "drawer" identified by the specification. That the filters are located in a "thermoluminescence device" should be apparent from at least column 1, lines 13-16.

With respect to dependent claim 11 (as best understood as depending from claim 9), the number of bandpass filters **31, 32** in the method of Attix is equal to the number of thermoluminescence crystals **A, B**.

With respect to dependent claim 13 (as best understood as depending from claim 9), the bandpass filters **31, 32** in the method of Attix comprise lenses insofar as a flat plate is fairly identified as a lens of no power.

### **Claim Rejections - 35 USC § 103**

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:



(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 3, 7, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Attix (US003484605A) in view of Tawil *et al.* (US005572027A).

With respect to dependent claim 3, Attix offers examples of two thermoluminescence crystals **A, B** or three thermoluminescence crystals **A, B, C** but not four thermoluminescence crystals. As admitted by applicant through the inclusion of Fig. 2, and as confirmed by Fig. 5 of Tawil *et al.*, a thermoluminescence device comprising four thermoluminescence crystals is known. In view of the utility of detecting different types or energies of ionizing radiation through the use of a plurality of different materials as described by Attix, which utility is sought by Tawil *et al.* through the inclusion of specifically "four" thermoluminescence elements, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the drawer of Attix to correspond to a plurality of different materials (column 2, line 28) in the number of four. Note that the form of the badge of Tawil *et al.* would appear to be described by Attix at column 2, lines 9-25 so the advantage of implementing the detection of four different types and energies of radiation required by Tawil *et al.* using the different materials taught by Attix is explicitly set forth. In using the wavelength spectrum of the different materials to distinguish the materials, the drawer of Attix corresponding to using four materials as suggested by Tawil *et al.* would require four bandpass filters thus meeting the claim recitation.

With respect to dependent claim 7 (as best understood as depending from claim 6), Attix offers examples of two thermoluminescence crystals **A, B** or three thermoluminescence crystals **A, B, C** but not four thermoluminescence crystals. As admitted by applicant through the inclusion of

Fig. 2, and as confirmed by Fig. 5 of Tawil *et al.*, a thermoluminescence device comprising four thermoluminescence crystals is known. In view of the utility of detecting different types or energies of ionizing radiation through the use of a plurality of different materials as described by Attix, which utility is sought by Tawil *et al.* through the inclusion of specifically “four” thermoluminescence elements, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the drawer of Attix to correspond to a plurality of different materials (column 2, line 28) in the number of four. Note that the form of the badge of Tawil *et al.* would appear to be described by Attix at column 2, lines 9-25 so the advantage of implementing the detection of four different types and energies of radiation required by Tawil *et al.* using the different materials taught by Attix is explicitly set forth. In using the wavelength spectrum of the different materials to distinguish the materials, the drawer of Attix corresponding to using four materials as suggested by Tawil *et al.* would require four bandpass filters thus meeting the claim recitation.

With respect to dependent claim 12 (as best understood as depending from claim 11), Attix offers examples of two thermoluminescence crystals **A, B** or three thermoluminescence crystals **A, B, C** but not four thermoluminescence crystals. As admitted by applicant through the inclusion of Fig. 2, and as confirmed by Fig. 5 of Tawil *et al.*, a thermoluminescence dosimetry method comprising the step of heating four thermoluminescence crystals is known. In view of the utility of detecting different types or energies of ionizing radiation through the use of a plurality of different materials as described by Attix, which utility is sought by Tawil *et al.* through the inclusion of specifically “four” thermoluminescence elements, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Attix to specify that the plurality of different materials (column 2, line 28) was in the number of four. Note that the form of the badge of Tawil *et al.* would appear to be described by Attix at column 2, lines 9-25 so the

advantage of implementing the detection of four different types and energies of radiation required by Tawil *et al.* using the different materials taught by Attix is explicitly set forth. In using the wavelength spectrum of the different materials to distinguish the materials, the method of Attix using four materials as suggested by Tawil *et al.* would require four bandpass filters thus meeting the claim recitation.

### **Conclusion**

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Harshaw, II (US003800142A), Miller (US005354997A), and Huston *et al.* (US005606163A) discloses thermoluminescence devices and methods which comprise a filter which may be of the bandpass type.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (703) 308-4850. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (703) 308-4852. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

ch  
June 23, 2003

**Constantine Hannaher**  
**Primary Examiner**